



COMMISSION ON THE PREVENTION OF WEAPONS OF
MASS DESTRUCTION PROLIFERATION AND TERRORISM

THE CLOCK IS TICKING

**A Progress Report on
America's Preparedness
to Prevent Weapons of Mass Destruction Proliferation and Terrorism**

October 21, 2009

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ABOUT THE COMMISSION ON THE PREVENTION OF WEAPONS OF MASS DESTRUCTION PROLIFERATION AND TERRORISM

Congress established the bipartisan Commission on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism to address the grave threat that the proliferation of weapons of mass destruction poses to the United States.

The Commission is a legacy of both the Joint Inquiry into Intelligence Community Activities Before and After the Terrorist Attacks of September 11, 2001, and the National Commission on Terrorist Attacks Upon the United States (the 9/11 Commission). The reports produced by these Commissions explained to the American people how and why the U.S. government failed to discover that terrorists, operating from Afghanistan, were infiltrating the United States in order to use a most unconventional resource—commercial airplanes—as weapons that would kill thousands of people. Those Commissions looked at the past. This Commission looks to the future.

The Commission's report, *World at Risk*, was published in December 2008 with the finding that the U.S. government has yet to fully adapt to the current circumstance of terrorism and weapons of mass destruction.

Recognizing the urgency in this assessment, Congress took the unprecedented step of authorizing an additional year of work by the Commission to assist Congress and the Administration to turn these recommendations into actions. Specifically, the report identifies 13 recommendations consisting of 49 actions that Congress and the Administration should take to change the trajectory of risk.

The full report is available at www.preventwmd.gov.

In January 2010, the Commission will be releasing a report card grading the Administration and Congress on their progress in implementing the recommendations of the report.

Senator Bob Graham, Chair
Senator Jim Talent, Vice Chair
Graham T. Allison, Commissioner
Robin Cleveland, Commissioner
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Henry D. Sokolski, Commissioner

EXECUTIVE SUMMARY

“Unless the world community acts decisively and with great urgency, it is more likely than not that a weapon of mass destruction will be used in a terrorist attack somewhere in the world by the end of 2013.”

—World at Risk

This was the somber conclusion of the bipartisan, congressionally mandated Commission on the Prevention of Weapons of Mass Destruction Proliferation and Terrorism in its report, *World at Risk*, released in December 2008. On December 2, 2008, the Director of National Intelligence publicly agreed with this assessment. Today, 323 days since the release of that report, the clock continues ticking and we are now closer to a possible attack. The U.S. government has taken some of the decisive and urgent actions needed, but these actions have not kept pace with the increasing capabilities and agility of those who would do harm to the United States and the world community.

The threat of bioterrorism is real. In December 2008, the Commission concluded that terrorists are more likely to be able to obtain and use a biological weapon than a nuclear weapon. This finding is not singular: In recent years, the United States has received strategic warnings of biological weapons use from dozens of government reports and expert panels.

The consequences of ignoring these warnings could be dire. For example, one recent study from the intelligence community projected that a one- to two-kilogram release of anthrax spores from a crop duster plane could kill more Americans than died in World War II. Clean-up and other economic costs could exceed \$1.8 trillion.

Yet the nation’s level of preparedness for dealing with the threat of bioterrorism remains far lower than that of the nuclear threat. Central to U.S. biosecurity strategy should be the recognition that biological weapons are distinct from nuclear weapons and require a unique approach. Unlike nuclear weapons, which require highly advanced technology, massive infrastructure, and rare materials that can be closely monitored and secured, biological weapons materials occur naturally, require no significant infrastructure to produce, and can be found in nearly every part of the world.

As technology advances, the ability to prevent biological attacks diminishes. Therefore, as noted in the Commission’s report, in order to deter attacks, the United States needs to demonstrate through preparedness and public exercises that the nation is capable of blunting the impact and thwarting the terrorist’s objectives. The United States must strengthen resilience by developing the capability to produce vaccines and therapeutics rapidly and inexpensively.

The near-term biodefense goal of the United States should be to limit the consequences of a bioweapons attack. The long-term goal should be to improve post-attack capabilities for rapid recognition, response, and recovery to a level that bioterrorism would no longer be considered a weapon of mass destruction. However, this goal cannot be achieved without the proper investment today.

At the same time, the nuclear threat continues to loom large. Too many nuclear materials remain unaccounted for. The nuclear weapons ambitions of North Korea and Iran continue to advance with North Korea's second nuclear test in May and the revelation of a hidden uranium enrichment facility in Iran, presenting increasingly immediate and urgent threats to the nonproliferation regime.

Pakistan remains the geographic crossroads for terrorism and weapons of mass destruction. Increasingly bold attacks on well guarded military, police, and UN targets indicate that the Taliban, al Qaeda, and other militant groups within Pakistan are a growing threat. The current trends, if left unchecked, will increase the odds that al Qaeda will successfully develop and use a biological weapon or a nuclear device against the United States or its allies.

Awareness of the nuclear threat was reaffirmed by the UN Security Council in September. UN Resolution 1887 expressed grave concern about the threat of nuclear proliferation to international peace and security and the need for international efforts to prevent it. But action will need to come out of the series of meetings coming up in the next year. As President Obama recognized in his speech before the UN Security Council, "The next 12 months will be absolutely critical in determining whether this resolution and our overall efforts to stop the spread and use of nuclear weapons are successful." The urgency cannot be overstated. Failure to shore up the nonproliferation regime could very well lead to a cascade of nuclear weapons proliferation that significantly alters the world as we know it.

Actions to address these threats can be divided into four areas: biological weapons proliferation and terrorism, nuclear weapons proliferation and terrorism, government organization and culture, and the role of the citizen. The realities of the biological weapons threat require a primary focus on rapid recognition, response, and recovery following an attack. The realities of the nuclear threat require a primary focus on prevention. At the same time, government reform is needed to eliminate bureaucratic redundancies and inefficient oversight so that the nation's intelligence and homeland security capabilities can be maximally effective. Finally, proper preparation will require the engagement of the American citizen through promotion of a culture of awareness and innovative cooperation. A well-informed, organized, and mobilized citizenry is one of the greatest resources of the United States and the foundation for national resilience in the event of a natural disaster or WMD attack.

INSUFFICIENT PROGRESS

Progress has been made, but the clock is ticking. As international leaders prepare to meet to discuss the Nuclear Non-Proliferation Treaty in 2010, the Biological and Toxin Weapons Convention in 2011, and several other efforts along the way, the U.S. government must lead the world in acting more quickly to prevent WMD proliferation and terrorism. The current trajectory of risk does not favor the United States, but the nation has the opportunity to change that trajectory with effective action. It is the purpose of this interim report and a full report card in January 2010 to alert the public and its representatives as to what the American government can and is doing to accomplish just that.

* * *

In January 2010, the Commission will be releasing a report card grading the Administration and Congress on their progress in implementing the recommendations of the Commission. This interim report highlights the areas that we are assessing and identifies both the successes and items that are in most urgent need of attention. Those areas are (1) Biological Weapons Proliferation and Terrorism; (2) Nuclear Weapons Proliferation and Terrorism; (3) Government Organization and Culture; and (4) The Role of the Citizen. Successes, needed improvements, and concerns for each of the four substantive areas are detailed in the sections below.

BIOLOGICAL WEAPONS PROLIFERATION AND TERRORISM

The WMD Commission report, *World at Risk*, stated that terrorists are more likely to obtain and use a biological weapon than a nuclear weapon. In late 2008, the Commission concluded that unless the world community acts urgently and decisively, it was more likely than not that a terrorist WMD attack would occur somewhere in the world by the end of 2013. On December 2, 2008, the Director of National Intelligence publicly agreed with this assessment.

It is essential that the U.S. government move more aggressively to address the threat of bioterrorism. Key to this is the recognition that bioweapons are distinct from nuclear weapons and require a unique approach.

Unlike nuclear weapons, U.S. security cannot rely on assumptions that bioweapons require rare materials that can be closely monitored, or result in a large “footprint” that can be seen by satellite or other technical means—they do not. In contrast to nuclear weapons, the level of technological expertise required to manufacture biological weapons is not nearly as great. In fact, the starting materials—pathogens—are accessible in nature, sick people, and laboratories worldwide. Illicit use of pathogens to be made into weapons could occur in any part of the world, and would not be readily detectable to outside observation.

The U.S. strategy for limiting the use of bioweapons must therefore take a fundamentally different approach than has been used for nuclear weapons.

The United States needs to continue to engage international partners in this effort—for example, by increasing efforts to bolster and support the Biological and Toxin Warfare Convention, and United Nations Security Council Resolution (UNSCR) 1540. The United States must ensure that its research laboratories are safe and secure (recommendations 1-1 and 1-3). But U.S. biosecurity strategy also must seek to limit the casualties of a biological attack, to prevent it from becoming a catastrophe equal to that of a nuclear terrorism attack (recommendation 1-5).

Unlike nuclear weapons, once a bomb goes off, there is little that can be done to mitigate the consequences. However, there is an opportunity to decrease the impact of a biological weapons attack by improving the nation’s capabilities for rapid recognition, response, and recovery. These capabilities, unfortunately, have not been adequately embraced in a national bioweapons prevention strategy.

It is vitally important to develop the capability to produce vaccines and therapeutics rapidly and less expensively than the United States can achieve now. Preparing for and mitigating the effects of bioweapons can prevent mass casualties, and reduce the incentives of terrorists to use them in the first place.

A major part of the U.S. long-term biodefense strategy should be based on reaching a level of preparedness that will prevent mass casualties, and in turn, effectively remove bioweapons from

the category of WMD. This will happen neither quickly nor cheaply, but it will be well worth the investment.

SUCCESSSES IN IMPLEMENTING WMD COMMISSION RECOMMENDATIONS ON BIOLOGICAL THREATS

Reviews of Laboratory Security

One of the most significant steps taken toward improving the security of the nation against the threat of WMD terrorism has been the U.S. government's response to the very first recommended action of the Commission's report: "The Department of Health and Human Services should lead an interagency review of the domestic program to secure dangerous pathogens." Several reports have been completed since the Commission made its recommendations in December 2008. These reports have focused on many of the areas that the Commission specifically called out for security review, including laboratory security, reliability and trustworthiness of employees who have access to dangerous pathogens and research facilities, and the federal oversight of high-containment laboratory research.

In January 2009, one month after the release of *World at Risk*, President George W. Bush issued Executive Order 13486, *Strengthening Laboratory Biosecurity in the United States*, calling for such a review. The review was conducted during the first months of the Obama Administration through the work of an interagency task force composed of a broad range of federal departments and agencies and overseen by the U.S. Department of Health and Human Services (HHS) and the U.S. Department of Agriculture (USDA).

Specifically, they were asked to "review and evaluate the efficiency and effectiveness of existing laws, regulations, guidance, and practices relating to physical, facility, and personnel security and assurance at Federal and non-Federal facilities" related to biological pathogens or research.

In addition to the Executive Order report, *The Report of the Trans-Federal Task Force on Optimizing Biosafety and Biocontainment Oversight* was presented to President Obama in July 2009. This report proposed "options and recommendations to improve biosafety and biocontainment oversight of research and research-related activities at high and maximum containment laboratories in the United States, without hindering the progress of science" in both federal and non-federal settings.

Other laboratory security reports have been completed since the Commission made its recommendations in December 2008, including:

- The Defense Science Board (on the Department of Defense's handling of Select Agents, or pathogens that have potential bioweapons application)

- National Academies of Science (on the personnel reliability of workers at the nation's biological research laboratories)
- National Science Advisory Board for Biosecurity (also on personnel reliability)
- The Government Accountability Office (on the security of high-containment biological research laboratories).

These reports are just the first step in fulfilling the Commission's recommendation; the next step in this process will be to integrate the conclusions of these reports into a national strategy for laboratory security. There were two areas in particular that yielded a great deal of consensus between the reports:

1. **Reduction of regulatory fragmentation will result in greater efficiencies and security:** There are currently too many agencies, at the federal, state, and local level that have responsibility for the regulation of select agents, a conclusion of the Commission as well. The result of this fragmentation of oversight has been particularly problematic in the area of inspections of facilities. There have been numerous, uncoordinated inspections with non-uniform standards, expectations, and interpretations. The Commission reiterates the *World at Risk* report's recommendation that for human pathogens, HHS should lead the effort to streamline and improve the oversight for lab security (recommendation 1-3).
2. **Stratification of risks is required for the regulation of dangerous pathogens:** In contrast to the situation that existed in 2001, all research facilities that handle dangerous pathogens that pose a bioterrorism risk (the Select Agents) are now required to register with the federal government. For example, if a research facility houses the bacteria that causes anthrax, the facility must be registered, and all those who have access to the pathogen must be cleared. However, not all of the biological agents that are currently regulated pose the same level of risk as anthrax to either public or agricultural health. Several of the reports that have been conducted since the Commission published its report recommended that the Select Agent list be either reduced or stratified so that resources can be concentrated where they are most needed, a goal that is certainly echoed by the *World at Risk* report.

Laboratory safety and security must be ensured without impeding the pace of scientific progress.

PROGRESS BUT MORE ACTION REQUIRED

Prevention Strategy for Biosecurity

In a positive step, the National Security Council (NSC) is developing a Bioweapons Prevention Strategy, but had not yet finalized it at the time this interim progress report was prepared. Encouragingly, it held several meetings this year, with a broad array of stakeholders, including experts from non-governmental organizations (NGOs), think tanks, and universities, as well as government officials. There have been many reports on aspects of laboratory security and microbial forensics. There has also been a rethinking of the role that Cooperative Threat Reduction must play in the world of bioweapons threats. All of these pieces should be developed into a comprehensive White House strategy. The Commission, as well as the nation, awaits their results.

Microbial Forensics Strategy

Microbial forensics is a new field that may aid in the attribution of a biological weapons attack, and yield new insights for biological detection and remediation. *World at Risk* called for a microbial forensics strategy for the nation (recommendation 1-2). An Interagency Bioforensics Strategy has been finalized and approved by the U.S. Office of Science and Technology Policy (OSTP) that has not yet been publicly released, but preliminary indications are that it exceeds the criteria stated in the Commission's recommendation 1-2. Work has also been done on the implementation of that strategy, which is expected to be completed early in 2010. This should be incorporated into the White House strategy for prevention of biothreats.

WMD Prevention and Preparedness Act of 2009

Senators Joe Lieberman (I-CT) and Susan Collins (R-ME) have introduced the *WMD Prevention and Preparedness Act of 2009*. This legislation addresses several of the Commission's biosecurity recommendations, including developing a strategy for advancing microbial forensics capabilities (recommendation 1-2), enhancing capacity for rapid response to prevent an anthrax attack from inflicting mass casualties (recommendation 1-5), strengthening global disease surveillance networks (recommendation 2-3), addressing the weakening science, technology, and critical language base in the intelligence community (recommendation 10), and openly and honestly engaging the American citizen (recommendation 13).

The Commission commends the leadership shown by Senator Lieberman and Senator Collins in acting so quickly in response to our recommendations. This comprehensive legislation provides an opportunity for significantly enhancing America's biodefense capabilities.

The most sensitive area addressed by the current version of the legislation focuses on laboratory security.

The Commission is pleased that this portion of the legislation is based on a strategy of risk management. It creates tiers of regulatory oversight for dangerous pathogens, which would allow greater resources to be placed where they are most needed. Tier 1 would contain the most dangerous pathogens, where most resources and oversight should focus. This list is closer to eight pathogens than the 80 currently regulated. Other pathogens need to be tracked and registered, but do not require the same oversight as smallpox, anthrax, Ebola, and plague. The nation must not waste time, energy, and money on regulations that do not increase security, and in fact impede science. After all, the United States needs *accelerated* progress in efforts to develop vaccines and drugs to combat these terrible diseases.

World at Risk found that fragmentation of government oversight and responsibilities was a national security problem. During Congressional testimony in September 2009, the Commission's chair and vice chair recommended that the current Select Agent program be merged with the tiered stratification of pathogens in the Act, so that there is *one* set of obligations for the regulated community to follow that abide by the principles of risk management. The regulated community should not have to adhere to different, conflicting sets of regulations.

Currently, under the Select Agent Rule, as defined by 42 CFR 73, 7 CFR 331 and 9 CFR 121, human pathogens are regulated by HHS; plant and animal pathogens are regulated by USDA, and facilities that house pathogens that are a concern for humans and livestock are inspected jointly. Accounts of this process in the reports that have been completed since the Commission reported its findings in December 2008, suggest that HHS and USDA have developed identical checklists and have cooperated well in meeting their regulatory responsibilities for human and plant/livestock pathogens, respectively. Given the distinct expertise on these pathogens in USDA and HHS, it is appropriate that USDA's expertise be brought to bear on livestock and crops, and that of HHS for human pathogens. However, it is the Commission's belief that in constructing a regulatory system for pathogens that can infect humans, *one* cabinet secretary should be in charge. The Commission reiterates the report's recommendation that for human pathogens, HHS should lead the effort to streamline and improve the oversight for lab security (recommendation 1-3).

The Commission applauds the use of advisory panels, consisting of government officials and outside experts from academia, industry, and think tanks. We encourage these activities and support their combined efforts to streamline the regulatory process and promote safe, secure research to diminish the threat of biological weapons.

AREAS OF CONCERN

Executive Responsibility

The Commission believes the U.S. government needs to move more aggressively to limit the effects of a biological attack. While the President did appoint a WMD Coordinator, the Commission strongly recommends that a senior political appointee with extensive biodefense and public health background be assigned to the NSC staff. The NSC needs a senior official whose sole responsibility is to improve America's capability for biodefense.

BARDA and BioShield Funding

Even as many efforts to improve the country's biopreparedness move forward, other steps have threatened progress or have actually set back biopreparedness. Most egregiously, two programs set up to develop and purchase medicines to prevent and respond to biological, radiological, or nuclear attacks have been inadequately funded, and have also had to weather attempts to raid their funding. One is the Department of HHS Biomedical Advanced Research and Development Authority (BARDA), which leads an integrated, systematic approach to the development and purchase of the necessary vaccines, drugs, therapies, and diagnostic tools for public health medical emergencies. The other is Project BioShield, which funds medical countermeasures against biological, chemical, radiological, and nuclear agents. The outgoing Bush Administration requested \$969 million in additional funding for BARDA. That funding could and should have been included in the stimulus package but was not.

BARDA was created in 2006, with unanimous support in both chambers of Congress. Its mission is to make sure that the nation is prepared with drugs and medical countermeasures not only for influenza, but for other emerging diseases, as well as chemical, biological, radiological and nuclear public health threats. BARDA has been working hard to prepare the nation for flu, hiring top talent, and partnering effectively with the private sector. However, it has received little funding for the rest of its mission.

The Obama Administration's request for BARDA in FY 2010 was only \$305 million. That is insufficient by a factor of 10. Drugs and vaccines needed for emerging, biological, chemical, and radiological threats will not be developed solely by the private sector without governmental support. BARDA is key to the development and stockpiling of the eight biodefense requirements laid out in HHS's Public Health Emergency Medical Countermeasures Enterprise (PHEMCE) Strategy for Chemical Biological, Radiological and Nuclear Threats: an anthrax vaccine and antitoxin; a filovirus (such as Ebola virus) vaccine; antivirals for Junin, smallpox, and filoviruses; and two kinds of broad-spectrum antibiotics, for Gram-positive and Gram-negative bacteria. These drugs and vaccines are deemed to be essential for the protection of civilians against biothreats.

Funding allocations for clinical development of biodefense medical countermeasures (MCMs) have direct impacts on the probability of successfully satisfying all of these requirements. The

Center for Biosecurity at the University of Pittsburgh Medical Center recently estimated that \$3.39 billion per year in medical countermeasure development support would be required to achieve a 90 percent probability of developing an FDA-licensed countermeasure for each of those requirements. The cost estimates of developing these pharmaceuticals were based on in-depth surveys of historical vaccine and drug development data, and reflect the high failure rate of biopharmaceutical development. It now falls to the U.S. government to fund the development of medical countermeasures based upon the level of risk that is deemed tolerable.

An amount of \$1.7 billion per year would meet roughly half the estimated need to provide a significant and necessary down-payment on the nation's preparedness. Given the threat, \$1.7 billion per year for prevention and consequence management is a reasonable and comparatively sound investment.

Despite limited funding to date, BARDA has developed the infrastructure, workforce, and expertise to manage the necessary portfolio of new medical countermeasures. What remains now is for the program to be funded.

Disease Surveillance

In addition to calling on international partners to strengthen disease surveillance, it is important that the United States improve *domestic* disease detection (recommendation 2-3). The ability for the nation to recognize a disease emergency—whether it is deliberate or naturally occurring—is the first link in a chain that leads to a robust public health response. Once a disease is detected, it is possible to rapidly communicate important information about the disease to all those who are susceptible, treat the sick, protect the well, and eventually contain an outbreak. If any part of this chain is weak or broken, an adequate response is not possible. Surveillance is a key part of biodefense preparedness, as it would help reduce the impact of an attack.

While the government has responded relatively quickly and decisively to the current novel H1N1 outbreak, there are already lessons to be learned to ensure a better response to the next disease emergency and greater mitigation of consequences to a deliberate attack. First, domestic disease surveillance is fragmented. For example, current surveillance systems do not give situational awareness of key characteristics of the epidemic, such as the severity of illness, transmission, and dissemination of disease in communities. Situational awareness of an outbreak drives policy decisions, including for school closings, infection control guidance, and antiviral drug use. To correct this, the nation needs robust links between the public health community and hospitals at the state and local levels.

The nation also needs to invest in rapid, point-of-care diagnostic tests. If they were available, the sick (and contagious) could be separated from those who are well to help minimize the spread of disease. Learning exactly how many people are sick can help to determine the size of an outbreak, whether the disease is getting more severe, and how to target limited health resources. It would be possible to improve current systems of deducing how many people are sick or have

died. Most importantly, point-of-care diagnostic tests would improve the nation's ability to treat people by providing a more timely and accurate diagnosis.

The above three specific examples suggest that the Obama Administration does not agree with the Commission's assessment of the biological threat. The Commission recommends that a senior political appointee with extensive biodefense and public health background be assigned to the NSC staff, that funding for BARDA be increased, and that domestic and international disease surveillance be improved.

NUCLEAR WEAPONS PROLIFERATION AND TERRORISM

As *World at Risk* noted, the number of states armed with nuclear weapons or seeking to develop them is increasing. Terrorist organizations are intent on acquiring nuclear weapons or the material and expertise needed to build them. Trafficking in nuclear materials and technology is a serious, relentless, and multidimensional problem. Yet, the Commissioners agreed, nuclear terrorism is preventable.

World at Risk focused on ways the United States could strengthen the nonproliferation regime, improve international cooperation—particularly with Russia—develop more effective policies to eliminate terrorist havens in Pakistan, and galvanize allies to stop the Iranian and North Korean nuclear weapons programs (recommendations 3 through 7).

One year later, the nuclear danger is more urgent. North Korea carried out its second nuclear test in May. Revelations emerged of a previously undisclosed Iranian uranium enrichment site in Qom. Fear of continued turmoil in Pakistan reinforces the Commission's concerns that the country could be an unwitting source of a terrorist attack on the United States—possibly with weapons of mass destruction.

The coming year is a critical one for nonproliferation, including two key upcoming meetings: President Obama's Global Summit on Nuclear Security and the Non-Proliferation Treaty (NPT) Review Conference. Without significant progress on many issues—Iran, North Korea, locking down nuclear weapons material, strengthening the capabilities of the International Atomic Energy Agency (IAEA), creating an international fuel bank to dissuade countries from their own nuclear fuel development, and strengthening of the NPT—the result could very well be a cascade of nuclear proliferation.

PROGRESS BUT MORE ACTION REQUIRED

Statements of Presidential Priority

President Obama recognizes that the coming year is critical for global security and the international nonproliferation regime. In April, he announced a Global Summit on Nuclear Security, designed to “bridge our divisions, build upon our hopes, accept our responsibility to leave this world more prosperous and more peaceful than we found it.” The Summit would occur immediately before the NPT Review Conference, the forum in which progress on many of the Commission's recommendations can be made.

Through prominent speeches and statements on the world stage, the Administration has endorsed the thrust of the Commission's recommendations. However, the heavy lifting is still to come. Many events will be beyond the control of the Administration, but as this crucial year approaches, significant attention and effort will be required during a time of competing priorities.

Penalties for States Violating the NPT

President Obama, in Prague, endorsed the recommendation for stronger penalties for states violating the NPT (recommendation 3-1): “[W]e will strengthen the nuclear Non-Proliferation Treaty as a basis for cooperation....Some will break the rules, but that is why we need a structure in place that ensures that when any nation does, they will face consequences.... To strengthen the Treaty, we should embrace several principles....We need real and immediate consequences for countries caught breaking the rules or trying to leave the Treaty without cause.”

At the L'Aquila Summit, the G-8 agreed that stronger measures are needed to address non-compliance or unjustified withdrawals from the NPT, and UNSCR 1887 gave additional support.

Whether and how these expressions of support might be made operational remains unclear, and the Commission urges the Administration to redouble its efforts to specify how it would make penalties for violators more certain and swift and withdrawals from the NPT more difficult and less likely. Although there will be opportunities to talk through these matters before and at the Nuclear Non-Proliferation Treaty Review Conference in May 2010, the Administration and Congress need to work in forums in addition to these.

Update and Improve IAEA Capabilities

In Prague and in his joint statement with President Medvedev, President Obama called for more resources and authority to strengthen international inspections. The United States, the agency's largest contributor, indicated it would increase its funding by 20 percent, a \$10 million boost. President Obama has called for doubling the agency's budget over the coming four years. After heavy U.S. lobbying, the IAEA Board in August raised the budget by 5.4 percent. This was an important step, although much more work is necessary to make sure that there are substantial increases made to IAEA nuclear safeguards activities.

Meanwhile, the U.S. Congress has taken the Commission's recommendation that the government should independently and in cooperation with the IAEA assess how well the IAEA is meeting its own nuclear safeguards timeliness detection goals, whether these goals are tough enough to provide timely warning, and where the IAEA is unlikely to be able to get timely warning of a military diversion under any circumstance. The Commission applauds the House for requiring in the State Authorization Act that such assessments be made routinely and urges the Senate to do likewise.

Much is left to be done to enhance the IAEA's authorities, including strengthening the safeguards system, expanding near-real time and wide-area surveillance, and requiring foreign visitors to IAEA safeguarded sites to be registered and accounted for.

International Nuclear Fuel Bank

In Prague, President Obama endorsed a nuclear fuel bank (although not specifying whether the fuel would be made available at market prices) and has been pushing for progress at the IAEA. International efforts to raise money for a fuel bank have also been successful. In March, Kuwait joined the Nuclear Threat Initiative (funded by NTI advisor Warren Buffett), the United States, the European Union, the United Arab Emirates, and Norway in pledging sufficient funds to create a low-enriched uranium stockpile managed by the IAEA. However, there was no progress in June or September. The Commission urges the IAEA to bring this program to fruition and has encouraged Director-General-Designate Yukiya Amano to lead this initiative.

Promoting Counterproliferation Initiatives

In April, President Obama endorsed the strengthening of two initiatives embraced by the Commission: the Proliferation Security Initiative (PSI) and the Global Initiative to Combat Nuclear Terrorism (GICNT).

The Commission is pleased that the G-8 Statement in July 2009 recognized and pledged further support for the roles of PSI and GICNT in countering WMD proliferation. We urge the Administration to continue to develop these tools for combating WMDs.

Restricting Enrichment and Reprocessing

The Obama Administration carried forward the Bush Administration proposal to the Nuclear Suppliers Group (NSG) for a “criteria-based approach.” According to this approach, no country should receive sensitive nuclear enrichment and reprocessing technology until it meets several criteria, including that it “has signed, ratified, and is implementing a comprehensive safeguards agreement and has an Additional Protocol in force; has not been identified in any report by the IAEA as being in breach of its obligations; whether the transfer would have a negative impact on the stability and security of the recipient state, or regional stability and security.” Although claiming to “make progress,” the NSG failed to reach consensus on a criteria-based approach at its June 2009 meeting. On July 6, in their Joint Statement, President Obama and President Medvedev committed to “continuing cooperating on effective export controls that make it possible to prevent nuclear materials, equipment, and technologies from falling into the hands of actors unauthorized by the state as well as prevent their use in any manner contrary to obligations under the NPT.” On July 8, at the L’Aquila Summit, the G-8 Statement noted the progress by the NSG on mechanisms to strengthen controls on the transfer of enrichment and reprocessing technology and on equipment and facilities and urged the NSG to reach consensus this year. The Administration should continue to push for adoption of a strict criteria-based approach at the NSG.

On the reprocessing front, the Obama Administration should be praised for taking up the Commission’s recommendation that the U.S. government place a moratorium on commercial reprocessing. The Administration also has been firm that there be a no nuclear fuel making

pledge from any Middle Eastern applicant for a U.S. nuclear energy cooperation agreement. The commission will continue to assess how well the Administration is keeping its commitments.

Promoting Energy Cooperation

The House has taken the Commission's recommendation that the government finally implement Title V of the Nuclear Nonproliferation Act of 1978 by reporting on what the United States is doing to cooperate with developing nations to develop non-nuclear alternative energy sources and to create a non-nuclear energy peace corps. The Commission applauds this effort and hopes that the White House and Senate will lend it their active support.

The Commission believes that Congress and the Executive may need to do more to reform the oversight of the approval of proposed nuclear cooperative agreements. The nuclear proliferation assessments that must accompany proposed agreements deserve greater attention and review.

This point was confirmed recently by the Government Accountability Office's (GAO) analysis of the nuclear proliferation assessment statement that accompanied the proposed U.S.–Russian civilian nuclear cooperative agreement. The GAO determined almost a year after the assessment was filed that it was both rushed and incomplete.

As this, and new additional agreements are brought before Congress, the Commission believes it is critical that congressional oversight of the Executive Branch's determinations be thorough and timely.

Finally, as the Commission noted, "The United States should work internationally toward strengthening the nonproliferation regime...by...discouraging, to the extent possible, the use of financial incentives in the promotion of civil nuclear power" (recommendation 3-8). It is unclear if Congress and the Administration will create additional financial incentives.

Review of Cooperative Nuclear Security Programs

In Prague, President Obama announced "a new international effort to secure all vulnerable nuclear material around the world within four years. We will set new standards, expand our cooperation with Russia, and pursue new partnerships to lock down these sensitive materials." To promote this goal, President Obama announced a Global Nuclear Security Summit to be held in March 2010 in Washington, D.C. The White House intends for the Summit to "allow discussion on the nature of the threat and develop steps that can be taken together to secure vulnerable materials, combat nuclear smuggling and deter, detect and disrupt attempts at nuclear terrorism." In their Joint Statement of July 6, President Obama and President Medvedev "reconfirmed" that while security at nuclear facilities meets current requirements, "we stress that nuclear security requirements need continuous upgrading" and declared their intent to "deepen long-term cooperation to further increase the level of nuclear facilities around the world..." The Commission applauds the Administration for the efforts it proposes to advance at its Global Nuclear Security Summit and looks forward to concrete progress on the Commission's goals.

Strategic Arms Reduction Treaty (START) Verification

In Moscow, President Obama and President Medvedev announced their intent to conclude a legally binding agreement to replace START before it expires in December 2009. The Joint Statement that they issued in July commits the United States and Russia to reduce their strategic warheads to a range of 1,500–1,675 warheads and their strategic delivery vehicles to a range of 500–1,100. According to the White House, “the new treaty will include effective verification measures drawn from the experiences of the Parties in implementing START.”

The Commission is pleased that the Obama Administration is acting in accordance with our recommendation that it “work with Russia to negotiate a post-START strategic nuclear framework” (recommendation 7-1). We are concerned, however, that even if a new agreement with Russia is signed today, it appears likely that there will be a lapse in treaty-based strategic arms control verification between the December termination of START and the date of Senate approval of the new agreement.

The Commission will continue to assess the Administration’s progress in this regard.

AREAS OF CONCERN

Iran, North Korea, and Pakistan

Iran and North Korea are the two chief threats to the nonproliferation regime. Policies for both are a work in progress, for the United States and its allies, and as of this writing, both countries are continuing their progress toward achieving their nuclear weapons ambitions. As President Obama acknowledged at the UN Security Council, the coming year is a critical period in nonproliferation, especially regarding actions to curb the nuclear ambitions of Iran and North Korea.

World at Risk found that, “As a top priority, the next administration must stop the Iranian and North Korean nuclear weapon programs. In the case of Iran, this requires the permanent cessation of all of Iran’s nuclear weapons-related efforts. In the case of North Korea, this requires the complete abandonment and dismantlement of all nuclear weapons and existing nuclear programs. If, as appears likely, the next administration seeks to stop these programs through direct diplomatic engagement with the Iranian and North Korean governments, it must do so from a position of strength, emphasizing both the benefits to them of abandoning their nuclear weapons programs and the enormous costs of failing to do so. Such engagement must be backed by the credible threat of direct action in the event that diplomacy fails” (recommendation 5).

Since then, North Korea’s nuclear test and the discovery of a covert uranium enrichment facility in Iran have only increased the urgency of these threats to the nonproliferation regime. While

the Commission is pleased the Administration and the international community remain seized of these issues, progress has been elusive to date.

In *World at Risk*, the Commission recommended that the President and Congress should implement a comprehensive policy toward Pakistan that works with Pakistan and other countries to eliminate terrorist safe havens, secure nuclear and biological materials, counter and defeat extremist ideology, and constrain a nascent nuclear arms race in Asia.

However, Pakistan remains in crisis. The country is at a geographic crossroads for terrorism and weapons of mass destruction. Increasingly bold attacks on well-guarded military, police, and UN targets make clear that the Taliban, al Qaeda, and other militant groups within Pakistan are a growing threat. The current trends, if left unchecked, will increase the odds that al Qaeda will successfully develop and use a biological weapon or a nuclear device against the United States or its allies.

The President recently signed an enhanced partnership act, also known as the Kerry-Lugar Pakistan aid bill, committing assistance for the people of Pakistan for the next five years. The bill provides for \$7.5 billion in aid to Pakistan over five years, tripling economic aid to the country, as it seeks to shift the focus of the U.S. partnership with Pakistan from the military to the country's people and civilian institutions. Conditions on the aid include an annual certification by the Secretary of State that Pakistan is pursuing its fight with Islamic extremists and that the civilian government retains control of the military. These steps are consistent with the Commission recommendations; however, the reaction in Pakistan to the conditions reinforce Commission concerns about the country's stability.

The Commission repeats the concern expressed in the report that "soft" or "smart" power is not the same thing as traditional foreign aid; it means a complete reassessment and reconstruction of U.S. capabilities to communicate effectively about American intentions, to assist in building grassroots democracy and economic institutions, and otherwise support American foreign policy using the civilian elements of national power.

GOVERNMENT ORGANIZATION AND CULTURE

The Commission found an uncoordinated and fragmented government structure and process for the prevention of WMD proliferation and terrorism. If these long-standing deficiencies in executive agency operations and congressional oversight of homeland security, intelligence, and other crosscutting 21st century issues are not corrected, the United States will remain woefully underprepared to respond to the growing WMD threat.

SUCCESSES IN IMPLEMENTING WMD COMMISSION RECOMMENDATIONS ON GOVERNMENT ORGANIZATION AND CULTURE

Executive Reform

The Commission's eighth recommendation stated that, "The President should create a more efficient and effective policy coordination structure by designating a White House principal advisor for WMD proliferation and terrorism and restructuring the National Security Council and Homeland Security Council." President Obama partially embraced this recommendation when he integrated the National Security Council and Homeland Security Council within his first 100 days in office.

AREAS OF CONCERN

Executive Reform

The Commission report expressed concern that in numerous cases in which policy tradeoffs were required nonproliferation was viewed as a secondary security issue. It is critical to have a senior official with direct access to the President to direct and promote nonproliferation interests. In the Commission's judgment no such person has been designated.

Congressional Reform

Congress has a vitally important role to play in overseeing the Department of Homeland Security. The atomization of authority, spread across 80-plus committees and subcommittees, ensures, however, that Congress will continue to lack a deep understanding of the important and interrelated security, intelligence, and health policy issues the nation faces. This fragmentation guarantees that much of what Congress does will be duplicative and disjointed.

When *World at Risk* was released last December, 86 committees claimed oversight over some portion of DHS. According to the DHS Office of Legislative Affairs, there are currently 108 Congressional committees and subcommittees with oversight authority for DHS. In 2008, 193 Homeland Security officials testified a total of 146 times before 48 House and Senate

committees and subcommittees, and provided 2,148 briefings. Unfortunately, Congress appears to be on track to nearly equal last year's totals.

The refusal of the nation's elected representatives to pull congressional authority together into one coherent oversight body is both self-serving and conspicuous, suggesting that individual concerns for "turf" supersede the legislature's willingness to assume responsibility to ensure our security.

The WMD Commission and the 9/11 Commission both recommended that the Senate and House Homeland Security Committees should be the sole authorizing committees for the Department of Homeland Security and all agencies under the Department's jurisdiction. Congress's failure to heed this recommendation—or even attempt to do so—underscores our conclusion that Congress simply lacks the will to do what is both obvious and necessary: To align its committee structure with the executive branch, and, more importantly, with America's security needs in the 21st century.

Congress must be held accountable for its actions, and its inaction. The Commission again calls on Senators Harry Reid and Mitch McConnell and Speaker Nancy Pelosi and Representative John Boehner to publicly commit to consolidate congressional oversight authority, beginning in January 2010, over the Department of Homeland Security, consistent with the recommendations of this Commission and the 9/11 Commission.

THE ROLE OF THE CITIZEN

The Commission strongly believes that a well-informed, organized, and engaged citizenry is the country's greatest resource. Our citizenry, supported by local, state, and federal efforts, must be the foundation for the nation's preparedness and resilience in the event of a natural disaster or a WMD attack.

Consistent with the Commission's report, the United States must openly and honestly engage the American public to create the organizations, and, through those organizations, pull together the capabilities that will make the nation prepared and resilient in the face of adversity. The kind of citizen engagement the Commission calls for is at the heart of this proposition, and requires government and NGOs to empower citizens with the tools and support to develop community resilience.

The most important observation that the Commission can offer the United States concerning preparedness and emergency management is that there are a vast array of capabilities found in each state, each region, and across society that can and must be organized and, when needed, mobilized in the event of a natural disaster or WMD attack. These capabilities are primarily the combined assets of state and local governments, our diverse business communities, NGOs, professional and service organizations, and all citizens. The federal government cannot hope to possess the capabilities needed in the event of a major disaster—but it can lend vital support if local and regional actors have organized beforehand.

SUCCESSSES IN IMPLEMENTING WMD COMMISSION RECOMMENDATIONS ON THE ROLE OF THE CITIZEN

Business Executives for National Security (BENS)

The finest practical example the Commission has found of this approach to emergency management involves an organization called Business Executives for National Security, or BENS.

A few years ago, officials in Iowa asked BENS to assist them in building a public-private partnership to strengthen disaster preparedness. After extended discussions with a growing number of local and regional stakeholders, both in government and the private sector, the Safeguard Iowa Partnership was launched—a formal working partnership involving state and local governments and private organizations that understood the need to collaborate and undertook the hard work needed to organize those capabilities.

When historic floods struck the state 18 months later, this partnership was the foundation for improved communications and coordination, demonstrating an emergency management capability that the federal government could not have prescribed or created. This is just one

example of BENS innovation in multiple states. Similar partnerships can and should be established in every state and region to meet the particular needs of that area.

The Commission commends BENS for its innovative approach to emergency response, preparedness, and resilience. We believe that the model they have established should be emulated elsewhere across the country, and it is applicable to both natural disasters and WMD attacks.

Centers for Disease Control and Prevention H1N1 Information

An essential part of engaging the American public is keeping it informed about health dangers and dispelling misinformation. The Centers for Disease Control and Prevention (CDC) deserves credit for its recognition of past myths surrounding flu vaccines and its proactive efforts to keep the public properly informed. In 1976, when sensational reports of deaths and illnesses derailed a large-scale flu vaccine drive, the CDC was ill-prepared to counter rumors that emerged. Today, in the lead up to the H1N1 flu vaccine drive, the CDC has a “war room” for rapid response news conferences, a web site dedicated to the pandemic, www.flu.gov, and a constantly updated Facebook page and Twitter feeds.

This will be particularly important in the case of pregnant women who are especially susceptible to the effects of H1N1. According to the CDC, pregnant women make up 6 percent of H1N1-confirmed deaths even though they account for only 1 percent of the population, and are at least four times as likely to be hospitalized as other flu sufferers. Yet, on average only one in seven women get a flu shot each year. Rumors of flu vaccines harming pregnant women have threatened to derail the drive to vaccinate this most vulnerable portion of the population. Communications efforts like that of the CDC should be replicated throughout the U.S. government to ensure protection of the health of the American people.

Department of Homeland Security (DHS)

The Department of Homeland Security (DHS) conducted its first Quadrennial Homeland Security Review (QHSR) from August through October 2009 to gain input from citizens and key stakeholders to develop strategic priorities for the department. The review was conducted through three online forums with specific directives, one of which specifically related to counterterrorism. More than 20,000 partners and stakeholders participated in this endeavor.

The QHSR clearly shows a concerted effort to engage the public and create a participatory approach toward preparedness planning. Such a large agency-wide effort to engage others by DHS had never been attempted before. A final report of the QHSR findings will be provided to Congress by December 31, 2009.

PROGRESS BUT MORE ACTION REQUIRED

Emergency Management Accreditation Program (EMAP)

The Emergency Management Accreditation Program (EMAP) is a voluntary assessment and accreditation process for state/territorial, regional, tribal, and local government emergency management programs. Evaluating the government program takes into account partnerships with NGOs and other government organizations, such as law enforcement and health organizations. The evaluation provides a structure to assess a program against established national standards developed by the professional organization, the National Emergency Management Association (NEMA).

Twenty states are currently accredited, which means they have met standards for areas such as “hazard identification, risk assessment and consequence analysis,” “prevention and security,” “communications and warning,” and “crisis communications, public education and information.” Since the metrics defined in EMAP already exist, more emergency management programs should seek accreditation to ensure communities are prepared. Only with proper organization of governmental and non-governmental agencies can citizen engagement truly become a cornerstone of disaster preparedness and response.

AREAS OF CONCERN

“Communities Defeat Terrorism”

As noted in *World at Risk*, the United States needs to create more programs similar to those used in the United Kingdom that embrace the public as “an early warning network” for terrorism. The report calls for a public education program that “goes well beyond the vague admonition to report ‘suspicious activities.’”

While several organizations have played key roles in preparing citizens for disaster, more effort needs to be invested into encouraging citizens to prevent an attack from occurring by reporting tips of suspicious behavior that could ultimately prevent a terrorist attack.

WORLD AT RISK RECOMMENDATIONS

RECOMMENDATION 1: The United States should undertake a series of mutually reinforcing domestic measures to prevent bioterrorism: (1) conduct a comprehensive review of the domestic program to secure dangerous pathogens, (2) develop a national strategy for advancing bioforensic capabilities, (3) tighten government oversight of high-containment laboratories, (4) promote a culture of security awareness in the life sciences community, and (5) enhance the nation's capabilities for rapid response to prevent biological attacks from inflicting mass casualties.

RECOMMENDATION 2: The United States should undertake a series of mutually reinforcing measures at the international level to prevent biological weapons proliferation and terrorism: (1) press for an international conference of countries with major biotechnology industries to promote biosecurity, (2) conduct a global assessment of biosecurity risks, (3) strengthen global disease surveillance networks, and (4) propose a new action plan for achieving universal adherence to and effective national implementation of the Biological Weapons Convention, for adoption at the next review conference in 2011.

RECOMMENDATION 3: The United States should work internationally toward strengthening the nonproliferation regime, reaffirming the vision of a world free of nuclear weapons by (1) imposing a range of penalties for NPT violations and withdrawal from the NPT that shift the burden of proof to the state under review for noncompliance; (2) ensuring access to nuclear fuel, at market prices to the extent possible, for non-nuclear states that agree not to develop sensitive fuel cycle capabilities and are in full compliance with international obligations; (3) strengthening the International Atomic Energy Agency, to include identifying the limitations to its safeguarding capabilities, and providing the agency with the resources and authorities needed to meet its current and expanding mandate; (4) promoting the further development and effective implementation of counterproliferation initiatives such as the Proliferation Security Initiative and the Global Initiative to Combat Nuclear Terrorism; (5) orchestrating consensus that there will be no new states, including Iran and North Korea, possessing uranium enrichment or plutonium-reprocessing capability; (6) working in concert with others to do everything possible to promote and maintain a moratorium on nuclear testing; (7) working toward a global agreement on the definition of "appropriate" and "effective" nuclear security and accounting systems as legally obligated under United Nations Security Council Resolution 1540; and (8) discouraging, to the extent possible, the use of financial incentives in the promotion of civil nuclear power.

RECOMMENDATION 4: The new President should undertake a comprehensive review of cooperative nuclear security programs, and should develop a global strategy that accounts for the worldwide expansion of the threat and the restructuring of our relationship with Russia from that of donor and recipient to a cooperative partnership.

RECOMMENDATION 5: As a top priority, the next administration must stop the Iranian and North Korean nuclear weapons programs. In the case of Iran, this requires the permanent

cessation of all of Iran's nuclear weapons-related efforts. In the case of North Korea, this requires the complete abandonment and dismantlement of all nuclear weapons and existing nuclear programs. If, as appears likely, the next administration seeks to stop these programs through direct diplomatic engagement with the Iranian and North Korean governments, it must do so from a position of strength, emphasizing both the benefits to them of abandoning their nuclear weapons programs and the enormous costs of failing to do so. Such engagement must be backed by the credible threat of direct action in the event that diplomacy fails.

RECOMMENDATION 6: The next President and Congress should implement a comprehensive policy toward Pakistan that works with Pakistan and other countries to (1) eliminate terrorist safe havens through military, economic, and diplomatic means; (2) secure nuclear and biological materials in Pakistan; (3) counter and defeat extremist ideology; and (4) constrain a nascent nuclear arms race in Asia.

RECOMMENDATION 7: The next U.S. administration should work with the Russian government on initiatives to jointly reduce the danger of the use of nuclear and biological weapons, including by (1) extending some of the essential verification and monitoring provisions of the Strategic Arms Reduction Treaty that are scheduled to expire in 2009; (2) advancing cooperation programs such as the Global Initiative to Combat Nuclear Terrorism, United Nations Security Council Resolution 1540, and the Proliferation Security Initiative; (3) sustaining security upgrades at sensitive sites in Russia and elsewhere, while finding common ground on further reductions in stockpiles of excess highly enriched uranium; (4) jointly encouraging China, Pakistan, and India to announce a moratorium on the further production of nuclear fissile materials for nuclear weapons and to reduce existing nuclear military deployments and stockpiles; and (5) offering assistance to other nations, such as Pakistan and India, in achieving nuclear confidence-building measures similar to those that the United States and the USSR followed for most of the Cold War.

RECOMMENDATION 8: The President should create a more efficient and effective policy coordination structure by designating a White House principal advisor for WMD proliferation and terrorism and restructuring the National Security Council and Homeland Security Council.

RECOMMENDATION 9: Congress should reform its oversight both structurally and substantively to better address intelligence, homeland security, and crosscutting 21st-century national security missions such as the prevention of weapons of mass destruction proliferation and terrorism.

RECOMMENDATION 10: Accelerate integration of effort among the counterproliferation, counterterrorism, and law enforcement communities to address WMD proliferation and terrorism issues; strengthen expertise in the nuclear and biological fields; prioritize pre-service and in-service training and retention of people with critical scientific, language, and foreign area skills; and ensure that the threat posed by biological weapons remains among the highest national intelligence priorities for collection and analysis.

RECOMMENDATION 11: The United States must build a national security workforce for the 21st century.

RECOMMENDATION 12: U.S. counterterrorism strategy must more effectively counter the ideology behind WMD terrorism. The United States should develop a more coherent and sustained strategy and capabilities for global ideological engagement to prevent future recruits, supporters, and facilitators.

RECOMMENDATION 13: The next administration must work to openly and honestly engage the American citizen, encouraging a participatory approach to meeting the challenges of the new century.

For full text of the report, visit www.preventwmd.gov.